

Impact of Big five personality traits on Academic Achievement of Prospective Teachers

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Abstract

There are some specific trends and regularities of behavioral patterns in individuals which determine their personality traits. This study was aimed to determine the impact of big five personality traits on academic achievement of prospective teachers. A quantitative study was conducted by using the casual comparative research design. A sample of 759 prospective teachers was selected through proportionate stratified random sampling technique from two public universities. Big Five personality traits inventory (BFI) was adopted to collect data. Data was analyzed by applying inferential statistics. The findings showed the significant impact of personality traits like conscientiousness, openness to experience on prospective teachers' academic achievement i.e. CGPA, while the impact of rest of the three variables i.e. extraversion, agreeableness and neuroticism on academic achievement was not statistically significant. Findings also revealed that female prospective teachers were more emotionally stable than male prospective teachers. Accordingly, academic achievement of prospective teachers was predicted (20%) by big five personality traits, therefore it is recommended that teacher education Institutes arrange training sessions or workshops for providing guidance to educators and prospective teachers, to understand that every student possess different level of personality traits which have a great impact on their academic achievement.

Keywords: Academic achievement, Big five Personality traits, Openness to experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism, prospective teachers.

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Introduction

Personality is the vibrant organization of those psychological sets of coordination in a human beings that control his behavior, thinking and determine his/ her characteristics and make them adapted to their environment. Personality of a person represents a process of change and it does not merely relate to the psychological growth but also involve in the holistic development of individuals in every field of life. Therefore, personality play an important role in adapting the school environment and thereby achieving academic performance (Peterson, 2008).

The set of those structures and propensities which are present inside a person and illuminate his/her characteristic, patterns of his/her thoughts, his/her emotions and his/her behavior can be referred as his/her personality traits. These are the repetitive trends or regularities in an individual. The sum of all the constant characteristics in a person from corner to corner which occur at various situations and times, and mark them distinctive from others could state as their personality traits (Colquitt, 2009).

Personality traits which determine the five major personality dimensions in an individual including openness to experience, conscientiousness, extraversion, agreeableness and neuroticism which can be abbreviated as OCEAN. These are the independent personality traits in an individual which describe their personality (Elaheh, 2011).

A personality dimension that characterizes someone who is intellectually curious and tends to search for new experiences and explore original and novel ideas is referred as openness to experience trait of personality. People with openness to experience personality trait like to originate new ideas and they normally like new experiences (Smith, 2003). Openness to experience regulate the need for diversity, emotional, behavioural propensities and intellectual interest for novel ideas in individuals. The main characteristics for Openness to experience people are broad minded, imaginative and are very receptive to novel ideas. Openness to experience is important for students and working people as they have a great need of exploring novel ideas and take innovative approaches to their better development in any organization (Zhao & Seibert, 2006).

Smith (2003), described that people with Conscientiousness personality trait work in a systematic way. These people are considered very responsible persons regarding their work. Conscientiousness deals with the way in which people govern, control, and direct their instincts and impulses. Instincts are not bad inherently. Occasionally time restraints require an impulsive decision regarding a situation. Acting on the first impulse can be an effective response. All this is related to the conscientiousness trait. Other than above characteristics motivation for doing tasks in students can also affected by Conscientiousness personality trait.

According to the Woosley (2001), extraversion personality type is characterized as enthusiastic and emphatic and talkative people, they are liberal kind of people. People who are high on extraversion tend to seek the outside world. They very interacting and socialite. They learn new things by communicating with others. Agreeableness could be referred as a person's shared orientation toward other persons. Some distinctive habituations of agreeableness personality trait include some characteristics such as sincerity, trust, and loyalty. People with agreeableness personality trait have a forgiving attitude. They belief in cooperation, and has an impending reputation as a pushover. The agreeable people are cooperative and are good-natured (Petska, 2006).

Neuroticism determines a personality type which _ considered to be limited in social skill. People with Neuroticism personality trait seek to avoid the circumstances which demand from them to rule or take control. Students which Neuroticism are characterized as nervous, anxious and emotionally unstable. These students can easily be tensed and possess high level of negative emotions. Other than that Neuroticism people possess pessimistic attitude and irrational perfectionistic beliefs. Some of the characteristics of Neuroticism people includes irrational perfectionistic beliefs low self-esteem and pessimistic attitudes. Neuroticism deals with the negative emotions in human beings for i.e. insecure, moody, nervous, and emotional. Mostly these people possess unstable character. (Colquitt, 2009).

Among all big five personality traits conscientiousness and openness to experience are good predictors of students' academic achievement. In addition to above mentioned traits, agreeableness is also important predictor of academic achievement (Barbanelli, 2003).

Eysenck (1964) found that Extroversion personality trait positively affect academic achievement of students of higher age. It have a very little impact on lower age students' academic achievement. He also found that neuroticism has a negative relation with academic achievement of students. So, Neuroticism has a negative effect on students' academic performance (Feyter, 2012). It has also been stated that the agreeableness, conscientiousness, and openness to experience had a positive relationship with students' performance. The other personality traits such as extraversion and neuroticism are proved to predict a negative relationship upon students' performance (Ozer & Martinez-B, 2006). Russo and Kaynama (2012) also conducted a study in personality traits and academic achievement and they revealed that some students will perform better if . they have the feeling and judging personality type Authors clearly stated that academic achievement of each student will differ and it depends on their personality types. In line with this study, Hakimi (2011) also found that personality traits were significantly related to academic achievement.

Statement of the problem

The major issue among all teachers, school administrators, parents and society is students' academic achievement. Researchers have made many attempts to reveal the difficulties surrounding the academic achievement of student. Number of reasons for these difficulties in academic achievement have been given by psychologist i.e. why these gaps exist in academic achievement of student. Looking at the different dimensions of personality traits and the way these Big five traits were impacting the students' academic achievement; a need was felt to explore the impact of big five personality traits on academic achievement of prospective teachers in Pakistan. It was attempted to empirically find the impact of openness to experience, conscientiousness, extraversion, agreeableness and neuroticism on academic achievement of prospective teachers of public universities of district, Lahore in Pakistan. This study may be helpful to understand that how personality traits can predict the academic achievement of prospective teachers This study may be useful for in-service educators and teachers in the process of training new teachers by keeping in view big five traits of their personality. This study may also enlighten the stakeholders in education sector on five different traits of personality and their impact on academic achievement of prospective teachers. It will also provide the room for further studies on big five personality traits in different perspectives.

Objective of the Study

The objective of the study was to:

1. Determine the impact of big five personality traits and academic achievement in prospective teachers.
2. Differentiate the prospective teachers' big five personality traits on the basis of demographic variables i.e. university and gender.

Research Methodology

The present study was quantitative in nature. Philosophical research paradigm of the study was positivist. The Causal-comparative research design was used to conduct this research which followed the retrospective approach

Participants of the study

There were approximately 1376 students enrolled in M.A Education program session (2017-2019) in two public universities. To conduct the present study a sample of 759 prospective teachers was selected as referred by Gay et al., 2012, by using proportionate stratified random sampling technique (i.e.47% from University X and 53% from University Y).

Research Instrumentation

Researcher used the questionnaire as a research instrument to conduct this study. The instrument was consisted of two sections. 1. Demographic profile which consisted of gender, University name and cumulative grade point (CGPA). Prospective teachers were asked to report their CGPA from their previous semester. 2. Big Five personality traits, which was measured by using Big five inventory (BFI) (John, 1991). Big five inventory (BFI) (John, 1991) was adapted to collect the responses for Big five traits from the prospective teachers. This inventory was further divided into 5 domains including 8 to 10 items per domain. First domain was named extraversion, which consisted of 8 statements. Second domain was named agreeableness which consisted of 9 statements. Third domain was named Conscientiousness which consisted of 9 statements. Fourth domain was named neuroticism which consisted of 8 statements. Fifth domain was named openness to experience which consisted of 10 statements. Total 44 statements were included in this inventory. Each statement in BFI was presented on a 5 point type Likert scale According to the John (1991), the developer of the inventory; the BFI has an internal consistency of .83. The following Cronbach coefficient alphas were calculated in the present study: extraversion, 0.62; Agreeableness, 0.67; Conscientiousness, 0.69; Neuroticism, 0.72; Openness to experience, 0.75. Overall the reliability of the instrument was 0.79.

Data Analysis and Interpretations

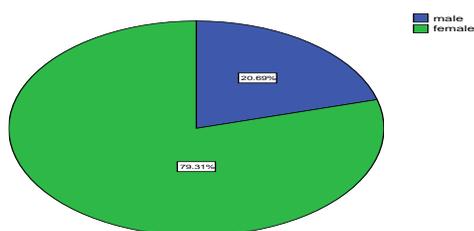
Data analysis was done in two sections: i.e. descriptive and inferential statistics. Descriptive analysis was performed to find out the demographic characteristics of the sample. Multiple regression analysis was performed to determine the impact of big personality trait on prospective teachers' academic achievement.

Section 3.1: Descriptive analysis

Demographic Properties of the Sample

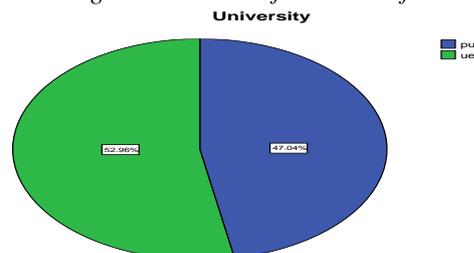
This section of the paper describes the demographic properties of the selected sample. Following figures show the percentage distribution of the select sample on the basis of demographic variables.

Percentage Distribution of the basis of Gender



Above figure shows the sample distribution of the study i.e. 21% of the prospective teachers was male while 79% prospective teachers were from University of education, Lahore.

Percentage Distribution of the basis of University



Above figure shows the sample distribution of the study i.e. 47% of the prospective teachers were from X university while 53% prospective teachers were from University Y.

Descriptive Statistics for Prospective Teachers big five Personality traits and their Academic Achievement

This segment includes the frequency distribution, standard deviation and mean of questionnaire to determine the prospective teachers' big five personality traits. There were five domains of Big Five inventory. 1. Extraversion in which 8 statements are included. 2. Agreeableness in which 9 are statements 3. Conscientiousness in which 9 statements are included. 4. Neuroticism in which 8 statements are included 5. Openness to experience in which 10 statements are included.

Table 1. Mean and Mean and Mean and Standard Deviation of Extraversion.

Extraversion	SDA	D	N	A	SA	M	SD
St-1	15.4	13	28.0	21.2	21.6	3.21	1.34
St-2	3.8	13.7	23.7	20.9	37.8	3.75	1.203
St-3	4.7	5.9	23.3	34.0	32.0	3.83	1.09
St-4	4.6	8.6	28.3	34.7	23.8	3.65	1.075
St-5	11.7	17.1	29.2	22.5	19.4	3.21	1.265
St-6	3.8	10.5	26.4	33.9	25.4	3.67	1.083
St-7	5.7	10.9	28.3	28.1	27.0	3.60	1.158
St-8	3.7	6.5	17.5	16.9	55.5	4.14	1.14

Above table shows the frequency distribution, means and standard deviation of Extraversion personality type. It shows that less than ___ of the participant such that 15.4%, and 13% respondents do not consider themselves as talkative so, they strongly disagreed and disagree a little respectively with the statement. While only 21.6% and 21.2% of the prospective teachers were considering themselves talkative. So, they strongly and a little agreed with the statement respectively.

According to the responses given to the second statement, few of the participants i.e. 3.8% and 13% were strongly and a little agreed with it i.e. they do not consider themselves reserved. While majority of the participants i.e. 20.9% and 37.8% of the participants considered themselves reserved so, they respond a little and strongly agreed to the statement. According to the responses given to third statement i.e. is full of energy, few of the participants 4.7% and 5.9% do not consider themselves energetic. Thus, respond strongly and a little disagreed to this statement. While majority of the people should add i.e. here 66% of participants see themselves as persons full of energy. According to the responses given to fourth statement i.e. Generates a lot of enthusiasm, few of the participants should add i.e. here 13% were not agreed to this statement. Which means they do not consider themselves those who generate a lot of energy. While majority of the people 59% were agreed to the statement i.e. these participants see themselves as persons who generate a lot of enthusiasm.

According to the responses given to fifth statement i.e. Tends to be quiet, about half of the participants 29% do not tend to be quite. While most of the participants i.e. 41% were agreed to the statement i.e. these participants see themselves as persons who are tending to be quiet. Results from responses to sixth statement i.e. has an assertive personality, shows that few of the participant (15%) do not consider themselves as persons with assertive personality. So, they disagreed with the statement. While majority of the people (59 %) agreed with the statement which means they have assertive personality.

According to the responses given to seven statement i.e. is sometimes shy, inhibited, only 17% of the respondent were agreed to the statement which means they are not shy and inhibited. While majority of the respondents (55%) were agreed to the statement which means they considered themselves as shy or inhibited. According to the responses given to eighth statement i.e. is outgoing, sociable, few of the participants (11%) were not sociable and outgoing. While majority of the participants (72%) were agreed to the statement i.e. these participants see themselves as persons who are outgoing, sociable. The highest mean 4.14 (SD .1141) and 3.83 (SD1.09) Show that more participants are outgoing, sociable and have assertive personality.

Table 2. Mean and Standard Deviation of Agreeableness trait

Agreeableness	SDA	DA	N	SA	A	M	SD
St-1	27.9	29.5	22.4	12.8	7.4	2.42	1.226
St-2	5.0	3.7	16.1	26.4	48.9	4.10	1.113

St-3	43.5	21.3	21.2	7.8	6.2	2.12	1.226
St-4	4.1	5.3	15.5	21.6	53.5	4.15	1.117
St-5	2.1	6.3	18.3	31.2	42.0	4.05	1.022
St-6	10.3	20.9	34.1	18.7	15.9	3.09	1.200
St-7	2.8	6.9	23.1	28.3	39.0	3.94	1.068
St-8	34.7	20.6	20.3	18.1	5.6	2.41	1.298
St-9	1.3	3.4	12.8	21.7	60.7	4.37	.924

This table shows the frequency distribution, means and standard deviation of agreeableness personality type. It shows that majority of the participants (57%) do not find fault with other. So, they disagreed with the statement. While few of the participants (20%) 7.4% and 12.8% of the prospective teachers were considering themselves as ones who find faults with others. So, they agreed with the statement respectively.

According the responses given to the second statement in the table i.e. is helpful and unselfish with others, only few of the participants (9 %) do not consider themselves helpful and unselfish with others. Majority of the participant (75%) were agreed to the statement which means they considered themselves helpful and unselfish with others. According to the responses given to third statement in the table i.e. Starts quarrels with others, majority of the participants 65% disagreed to this statement which means they do no start quarrels with others. While few 34% of the participants agreed to the statement i.e. these participants see themselves as those individuals who start quarrels with others.

According to the responses given to fourth statement in the table i.e. has a forgiving nature, few of the participant do not have a forgiving nature. Whereas majority of the participants (65%) were considering themselves as people with forgiving nature. According to the responses given to fifth statement in the table i.e. is generally trusting, very small numbers of the participants (8%) were disagreed to this statement which means generally they not trusting the others. But on the contrary to this, majority of the participants (73%) were agreed to this statement which means they generally are trusting.

Results from responses to sixth statement in the table i.e. can be cold and aloof, shows that majority of the participants (40%) do not considered their selves who can be cold and aloof. So, they disagree with the statement. While on the contrary to it about (35%) of the prospective teachers were agreed with the statement respectively which means they can be cold and aloof. Results from the responses given to seven statement i.e. is considerate and kind to almost everyone, very few participants (9%) were not considerate and kind to almost everyone as they disagreed to the statement. Whereas majority of the (67%) see themselves considerate and kind to almost everyone. According to the responses given to eighth statement i.e. is sometimes rude to others, majority of the participants (55%) do not considered themselves rude to others. While some of the people (24%) see themselves as persons who are sometimes rude to others.

According to the responses given to ninth statement in the table i.e. Likes to cooperate with others, very few number of the participants i.e. only 5% disagree to the statement which means they do not like to cooperate with others as they disagree with the statement. While majority of the participants were agreed that's mean these participants see themselves cooperative with others. The highest means 4.37 (SD: .924) and 4.15 (SD: .117) show that participants are cooperative, helpful and have a forgiving nature.

Table 3. Mean and Standard Deviation of Conscientiousness trait

Conscientiousness	SDA	DS	N	SA	A	M	SD
St-1	3.7	8.7	26.5	26.1	35.0	3.80	1.121
St-2	7.0	24.6	31.6	25.8	10.9	3.90	1.102
St-3	4.0	5.5	24.1	25.7	40.7	3.94	1.106
St-4	18.2	26.9	32.0	16.2	6.7	2.66	1.147
St-5	23.3	25.2	26.9	17.3	7.4	2.60	1.223

St-6	3.7	10.7	27.0	25.0	33.6	3.74	1.140
St-7	2.6	9.9	22.1	26.6	38.7	3.89	1.109
St-8	5.0	13.0	27.1	25.4	29.4	3.61	1.178
St-9	17.0	24.0	31.0	17.1	10.9	2.81	1.222

This table shows the frequency distribution, means and standard deviation of conscientiousness personality type. It shows that a small number of participants (12%) considered their selves as persons who do a thorough job. So, they disagree with the statement. But on contrary to this majority of the respondents (61%) were considering themselves as ones who do a thorough job as they strongly and a little agreed with the statement.

According the responses given to the second statement in the table i.e. can be somewhat careless, most of the participants (41%) disagreed with it i.e. they do not consider themselves careless. But half of the respondents (36) agreed to the statement which means they considered themselves careless. According to the responses given to third statement in the table i.e. is reliable worker, few of the prospective teachers (10%) do not considered themselves as a reliable worker. Whereas, majority of the prospective teachers (75%) considered themselves as reliable workers as they agreed to the statement. According to the responses given to fourth statement in the table i.e. tends to be disorganized, majority of the participants were disagreed to it which means they do not tend to be disorganized. On the contrary to this some of the prospective teachers (22%) were agreed to the statement which means these participants consider themselves who tend to be disorganized.

Results from the responses given to fifth statement in the table i.e. tends to be lazy shows that majority of the prospective teachers (48%) disagreed to this statement which means they do not consider themselves as those individuals who tend to be lazy. While few of participants (23%) were agreed to the statements which mean these participants consider themselves who are tending to be lazy.

According to the responses given to sixth statement in the table i.e. preserves until the task is finished, some of the participants (14%) disagreed to this statement which means they do not preserved until the task is finished. While most of the students (59%) agreed to this statement i.e. these participants remain preserve until the task is finished.

Results from responses to seven statement in the table i.e. do things efficiently, shows that few of them lack efficiency in doing things. But contrast to it majority of the prospective teachers (62%) were agreed with the statement which means they do things efficiently. According to the responses given to eighth statement i.e. makes plans and follow them, few of the prospective teachers (18%) do not make plans and follow them because they disagreed to this statement. While majority of the prospective teachers (55%) were agreed to the statement i.e. these participants see themselves who make plans and follow them.

According to the responses given to ninth statement i.e. is easily distracted, majority of the prospective teachers (43%) disagreed to this statement which means they do not easily. While some of the participants (28%) were agreed to the statement i.e. these participants see themselves as persons who can easily be distracted. The highest means 3.94 (SD: .106) and 3.90 (SD: .102) Show that participants are consider themselves as reliable workers but can be somewhat careless.

Table 4. Mean and Standard Deviation of Neuroticism Trait

Neuroticism	SDA	DA	N	SA	A	M	SD
St-1	17.1	26.9	36.8	13.6	5.7	2.64	1.089
St-2	5.0	10.5	35.0	31.6	17.3	3.47	1.067
St-3	7.2	22.7	32.1	24.2	13.7	3.14	1.135
St-4	8.6	20.0	29.5	23.8	18.1	3.23	1.206
St-5	14.2	13.3	34.4	23.7	14.4	3.11	1.227
St-6	6.7	8.0	28.5	27.8	29.0	3.64	1.173
St-7	13.4	15.0	31.8	22.1	17.7	3.16	1.262
St-8	10.8	20.2	25.2	24.1	19.8	3.22	1.273

This table shows the frequency distribution, means and standard deviation of neuroticism personality type. It shows that majority of the prospective teachers (44%) do not consider themselves depressed and blue. While some of the prospective teachers (20%) were agreed to it i.e. they were considering themselves depressed and blue.

Results from the responses given to the second statement in the table i.e. is relaxed and handle stress well, shows that small number of the participants (15%) were disagreed to the statement i.e. they cannot handle stress well and thus, are not relaxed. But on the contrary to it majority of the participants (48%) agreed to the statement which means they are relaxed and can handle stress well. According to the responses given to third statement in the table i.e. can be tensed, most of the participants (30%) disagreed to this statement which means they cannot be tensed. While majority of the prospective teachers (36%) were agreed to the statement i.e. these participants can be get tensed. According to the responses given to fourth statement in the table i.e. worries a lot, most of the participants (29%) were disagreed to this statement which means they do not worry a lot. While majority of the prospective teachers (42%) were agreed to the statements which means these participants worry a lot.

According to the responses given to fifth statement in the table i.e. is emotionally stable, not easily upset; few of the participants (27%) were disagreed to this statement which means they are not emotionally stable and easily get upset. While majority of the prospective teachers (37%) agreed to the statements which means these participants are emotionally stable and not easily upset. Results from the responses given to sixth statement in the table i.e. can be moody shows that small number of the participants (14%) were disagreed to this statement which means they cannot be moody. While majority of the prospective teachers (57%) see themselves as those individuals who can be moody. Results from responses to seven statement in the table i.e. remains calm in tensed situations, shows that small number (28%) were disagreed to the statement which means they do not remain calm in tensed situations. While majority of the prospective teacher (40%) were agreed with the statement which means they remain calm in tensed situations. According to the responses given to eighth statement i.e. gets nervous easily most of the prospective teachers (31%) were disagreed to this statement which means they do not get nervous easily. But on the contrary to this majority of the prospective teachers (42%) were agreed to the statement i.e. these participants get nervous easily. The highest means 3.64 (SD: .173) and 3.47 (SD: .067) Show that participants are relaxed, remain calm in tensed situations and can handle stress well.

Table 5. Mean and Standard Deviation of Openness to experience Trait

Openness to experience	SDA	DA	N	SA	A	M	SD
St-1	4.6	7.0	26.4	28.3	33.7	3.80	1.12
St-2	4.9	9.1	22.7	30.0	33.2	3.78	1.14
St-3	3.7	9.4	25.0	29.9	32.0	3.77	1.10
St-4	6.9	7.0	39.4	22.4	24.4	3.50	1.13
St-5	5.0	8.2	28.3	26.7	31.8	3.72	1.14
St-6	3.8	6.6	29.5	28.6	31.5	3.77	1.08
St-7	3.7	9.1	23.2	34.0	30.0	3.78	1.086
St-8	7.2	11.3	27.7	27.3	26.5	3.54	1.200
St-9	4.0	5.8	37.7	28.3	24.2	3.63	1.035
St-10	10.4	9.1	26.4	23.3	30.8	3.55	1.293

This table shows the frequency distribution, means and standard deviation of openness to experience domain. It shows that few of the prospective teachers (12%) do not consider themselves who are originals and come with new ideas because they disagree with the statement. While majority of the prospective teachers (62%) were considering themselves original with new ideas as they agreed with the statement.

According to the responses given to the second statement in the table i.e. is curious about many different things, some of the prospective teachers (14%) were disagreed with it i.e. they do not consider themselves curious about many different things. But on the contrary to this majority of the prospective

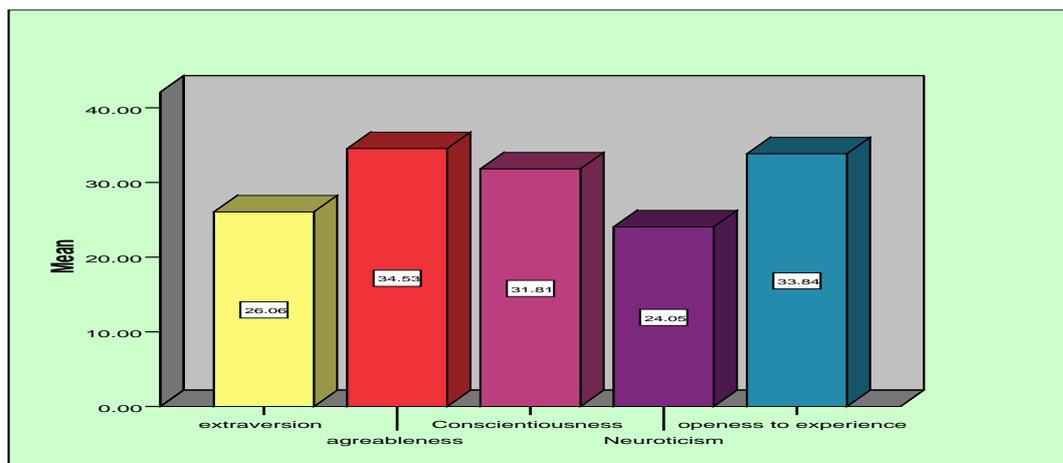
teachers (63%) were curious about many different things. According to the responses given to third statement in the table i.e. is ingenious and deep thinker, small number of the prospective teachers (14%) were disagreed to this statement which means these prospective teachers do not consider themselves ingenious and deep thinker. While majority of the participants (62%) agreed to the statement i.e. these participant consider themselves ingenious and deep thinkers.

According to the responses given to fourth statement in the table i.e. is inventive, few of the participants (13%) were disagreed to this statement which means they are not. While majority of the participants (47%) were agreed to the statements which means these participants are inventive. According to the responses given to fifth statement in the table i.e. values artistic, atheistic experience, some of the prospective teachers (14%) were disagreed to this statement which means they do not values artistic, atheistic experience. While majority of the prospective teachers 59% agreed to the statements which means these participants values artistic, atheistic experience.

According to the responses given to sixth statement in the table i.e. is prefer work that is routine; few number of the prospective teachers (10%) were disagreed to this statement which means they do not prefer work that is routine. While majority of the participants (66%) were agreed to the statements which means these participants prefer work that is routine. Results from the responses given to seven statement in the table i.e. likes to reflect, play with ideas, show that few of the participants (13%) disagreed to this statement which they like to reflect and play with ideas. While majority of the prospective teachers (64%) agreed to the statement i.e. these participants like to reflect, play with ideas. Results from responses to eighth statement in the table i.e. have few artistic interests; show that some of the prospective teachers (18%) disagree with the statement which means they do not have few artistic interests. While majority of the prospective teachers (54%) were agreed with the statement respectively which means they have few artistic interests.

According to the responses given to ninth statement i.e. has an active imagination, only 9% of the participants disagreed to this statement which means they do not have an active imagination. While majority of the participants (52%) were agreed to the statement i.e. these participants have an active imagination. According to the responses given to tenth statement i.e. is sophisticated in art, music, or literature only (20%) disagreed to this statement which means they are not sophisticated in art, music, or literature. While majority of the prospective teachers (58%) agreed to the statement i.e. these participants are sophisticated in art, music, or literature. The highest means 3.8 (SD: .120) and 3.47 (SD: .140) Show that participants are curious about many different things, and these participants are originals, come with new ideas.

Figure 1. Means Ranking of Big Five Personality Traits in Prospective Teachers



Above figure shows the graphical representation of means in percentage of big five personality traits in prospective teachers. Figure shows that prospective teachers scored more high on

Agreeableness (34.53%) in comparison to other personality traits which describes that prospective teachers of two public universities are empathetic, illustrative and are more cooperative. While data also describes that prospective teachers scored more low on Neuroticism (24.05%) than other four personality traits which illustrate that prospective teachers of two public universities are emotionally stable and are more resilient. Above mean distribution of personality traits also illustrate that all there is no extreme of single personality trait rather all these traits occur in prospective teachers with a little difference. In other words their personality is the combination of big five personality traits.

Section 3. 2: Inferential statistics

Table 6. Results of Multiple Regression Analysis.

Variables	B	SE B	B	T	P
Extraversion	0.00	.004	.004	.106	.915
Agreeableness	-.004	.044	-.044	-1.091	.276
Conscientiousness	-.011	.044	-.120	-2.905	.004
Neuroticism	-.006	.044	-.056	-1.459	.145
Openness to experience.	.010	.003	.119	3.013	.003

F= 3.401, R= .445, R²= 0.198, p= .005

Multiple regression was used to assess the impact of big five personality traits on prospective teacher's academic achievements. The values of unstandardized beta (B), standard error beta (SE B) and standardized beta (β) is given. The results revealed that $F(5,758) = 3.401$, $p < .005$, $R = .149$ and $R^2 = 0.198$. The impact of Conscientiousness on academic achievement was more statistically significant than other four variables with a high beta value (beta = .120, $p = .004$). Next to the later, the impact of openness to experience on academic achievement of prospective teachers was also statistically significant with a second highest beta value (beta = .119, $p = .003$) than other three variables. The impact of rest of the three variables i.e. extraversion, agreeableness and neuroticism and academic achievement was not statistically significant with beta values: beta = .004, $p = .915$; beta = -.044, $p = .276$; beta = -.056, $p = .145$. Overall 20% of the academic achievement was predicted by big five personality traits.

Table 7. Results of Independent samples t-test (for gender)

Variables	Male		Female		T	df	P
	M	SD	M	SD			
Extraversion	26.59	3.69	25.91	3.69	1.957	757	0.51
Agreeableness	34.35	5.77	34.64	4.93	0.583	219	0.561
Conscientiousness	31.40	4.42	31.9	4.87	1.210	757	0.227
Neuroticism	22.74	3.76	24.50	4.14	4.820	753	0.001
Openness to experience.	34.78	4.79	34.0	4.61	1.636	741	0.102

Above table shows the results from an independent sample t-test. Test was applied to differentiate the big five personality trait on the basis of their gender. It describes that there was significant difference in neuroticism on the basis of gender as $p < 0.05$ and $t(753) = -4.820$, $p(0.001)$. Which explains that female prospective teachers possess more neuroticism personality trait than males. Thus a null hypothesis is rejected for neuroticism. While there was insignificant difference in Extraversion, Agreeableness, conscientiousness and openness to experience; $t(757) = 1.957$, $p(0.51)$; t

(219) = -0.583, p (0.561); t (757) = -1.210, p (0.227); t (741) = 1.636 p (0.102) respectively. Thus, null hypothesis is accepted for extraversion, Agreeableness, Conscientiousness and Openness to experience.

Table 8. Results of Independent Samples t -test (for university).

	University X (356)		University Y (402)		T	df	P
	M	SD	M	SD			
Extraversion	25.59	3.822	26.49	3.846	-3.21	757	0.01
Agreeableness	33.54	5.55	35.56	4.453	-5.507	703	0.00
Conscientiousness	31.10	4.683	32.49	4.769	-4.040	757	0.00
Neuroticism	24.60	4.574	23.69	3.604	3.026	701	0.03
Openness to experience.	34.08	4.829	34.26	4.47	-.518	731	0.61

Above table shows the results from an independent sample t -test. Test was applied to differentiate the big five personality trait on the basis of two universities (X & Y). It illustrates that there was insignificant difference in Openness to experience on the basis of university as $p > 0.05$ and $t(731) = -518$, p (0.61). So, null hypothesis is accepted for Openness to experience. While there was a significant difference in Extraversion, Agreeableness, Conscientious and Neuroticism; $t(757) = -3.21$, p (0.01); $t(703) = -5.507$, p (0.00); $t(757) = -4.040$, p (0.00); $t(701) = 3.026$, p (0.03) respectively, on the basis of universities. So, null hypothesis is rejected for these four personality traits.

Discussion

This study was designed to determine the impact of big five personality traits on prospective teachers' academic achievement and to differentiate the big five personality traits on the basis of demographic variables. It has been cleared from research findings that these big five traits were impacting the academic achievement of the prospective teachers. Results of the study reveal that Academic Achievement was more predicted by Conscientiousness. Later to Conscientiousness, academic achievement was also predicted by Openness to experience. Thus, specifically saying that only two personality traits i.e. Conscientiousness and Openness to Experience were leading to significant change in academic achievement (i.e. CGPA) of the prospective teachers. All the other three personality traits (i.e. Extraversion, Agreeableness and Neuroticism) were failed to predict the academic achievement of prospective teachers. Overall these big five personality traits altogether were able to predict 20 % of the variance in the academic achievement i.e. of the prospective teachers.

The findings of the study are in the link with literature. The previous researches also revealed that big five personality traits are important factors in impacting the academic achievement of students. Such that the work of Kappe and Filer (2010), on personality traits, who stated that among all the big five personality traits Academic achievement is best predicted by Conscientiousness.

Openness to experience and Conscientiousness have a good predicted power on CGPA of the prospective teachers (Farside & Woodfield, 2003). In another study on personality traits it was revealed that academic performance and academic motivation is predicted by Conscientiousness (Cornad, 2006). It was also stated by Farside and Woodfield (2010), that Academic achievement is positively linked with Agreeableness. Results from multiple regression showed that Extraversion could not predict the academic achievement of prospective teachers. It is also stated that Extraversion personality trait has an inclusive result. This trait includes the characteristics i.e. sociable, communicator and active. These characteristics help in foster the learning but not directly impact the academic achievement (Duff, 2004). As concerned with neuroticism, it always concerned with negative emotions so it is negatively related with the academic achievement but did not have the negative predictive power on academic achievement i.e. CGPA (Clark & Schroth, 2010).

Results from the independent sample t-test shows that there was a significant difference in neuroticism on the basis of gender. The higher value of standard deviation for females; $SD= 4.14$ revealed that females leaned more toward neuroticism personality than males with the low score on neuroticism; $SD=3.76$. Thus, women are having more neuroticism personality than males (McCrae & John, 1992). There no significant difference in openness to experience, agreeableness, conscientiousness and extraversion on the basis of gender. Thus there was no statistically significant difference in females and male prospective teachers regarding these four traits. There was an insignificant difference in openness to experience on the basis of two public universities. But there were significant differences in prospective teachers for Extraversion, Agreeableness, Neuroticism and Conscientiousness on the basis of university X and university Y.

Conclusion

Conclusion was made on the basis of finding and statistical analysis. This study was designed to determine the impact of big five personality traits on prospective teachers' academic achievement and to differentiate the big five personality traits on the basis of demographic variables. Inferential statistics such that multiple regression and a t-test was performed to test the hypothesis and attain the objectives of the study. On the basis of results, it has been concluded that to some extent all the big five personality traits impact the prospective teachers' academic achievement but varies in the strength of impacting the academic achievement. Among all the big five personality traits, the academic achievement was more predicted by Conscientiousness. After conscientiousness academic achievement of prospective teachers was predicted by openness to experience than other three personality traits i.e. extraversion agreeableness and neuroticism. The impact of Extraversion, Agreeableness and Neuroticism on academic achievement of prospective was not too much predictable. As next to the later Neuroticism was impacting the prospective teachers' academic achievement and it was least predicted by Agreeableness and Extraversion. Findings of the study also reveals that there is statistically significant difference for neuroticism in prospective teachers on the basis of gender. While an insignificant difference was found in prospective teachers, about openness to experience, conscientiousness, extraversion and agreeableness on the basis of gender. There were also an insignificant difference in prospective teachers regarding Openness to Experience on the basis of university. In prospective teachers, there was a significant difference in Extraversion, Agreeableness, Conscientious and Neuroticism in two public universities.

Recommendations

On the basis of research findings and literature some recommendations were made by the researcher. As the results of the study illustrate that conscientiousness and Openness to experience personality trait positively impact the academic achievement of students. Thus, it is recommended that focus could be given in developing these personality traits in students. Some training sessions or workshops can be arranged to provide guidance to the students, parents and teachers to understand that every student possess different level of personality traits which impact their academic achievement. As it is found that females are more emotionally unstable than males so, it is recommended that special sessions only for female prospective teacher may be arranged by the institute to make them emotionally more stable. Counselors may be provided to the students to understand their personality. So their academic achievement can be enhanced. It is also recommended that personality trait should also be studied with other variable as in this research negative impact was found on academic achievement. Future researcher are recommended to expand the span of the study research was delimited to only two public universities of district, Lahore i.e. they can increase the number of universities to conduct their research.

References

Colquitt, B. (2009). *Organizational Behavior; improving performance and commitment in the workplace.* McGraw-Hill.

- Conrad, L. (2006). Aptitude is not enough: How personality and behavior predict academic performance. *Journal of Research in Personality*, 40,339-346.
- Elaheh, H. (2011).The relationships between personality traits and students' academic achievement. *Procedia - Social and Behavioral Sciences*, 29 (2011), 836 – 845.
- John, O. P., (1991). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. *In L. A. Pervin & O. P. John (Eds.), Handbook of personality: Theory and research (2)*, 102–138.
- Kappe, R. & Flier, H. (2012). Predicting academic success in higher education: What's more important than being smart? *European Journal of Psychology of Education*, 27(3), 890-919).
- McCrae, R., & John, O.P. (1992).An introduction on five factor model and its implications. *Journal of Personality*, 60(12), 169-17
- Smith, C. (2003). Corporate social responsibility: whether or how? *California Management Review*, 45(4).
- Steinmayr,R. Meibner, A., & Wirthwein, L. (2017). Academic achievement. In *Oxford Bibliographies*.
- West African Examinations Council. (2005). Variables affecting student achievement. Retrieved from <http://www.waec.org/resource/primer/variable.htm>.
- Woo, S. E. (2014). Openness to experience: Its lower Level Structure, Measurement, and cross-cultural equivalence. *Journal of personality assessment*, 96(4).
- Farsides, T., & Woodfield, R. (2003). Individual differences and undergraduate academic success: The roles of personality, intelligence, and application. *Personality and Individual Differences*, 34(7), 1225–1243.
- Woosley, E. R. (2001). A look at the relationships between MBTI psychological types and mode conflict styles.
- Zhao, H., & Seibert, S. E. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91(2), 259-271.